LAKE AND RIVER ENHANCEMENT PROGRAM
SEDIMENT REMOVAL FROM LAKES

Sediment Removal Plan Requirements

Organizations interested in acquiring Lake and River Enhancement (LARE) sediment removal grant funds should first review LARE program policies established by the State Soil Conservation Board (SSCB) to determine whether a proposed project is eligible for funding.

One of the eligibility requirements to receive LARE funds to remove sediment from public lakes is that an applicant must first have an approved ***sediment removal plan*** in place. (LARE grant funds are available, on a competitive basis, for the production of ***sediment removal plans***.)

The purpose of a ***sediment removal plan*** is to establish a basis and provide a roadmap for conducting a sediment removal project and to insure that all aspects of the project have been thoroughly evaluated in advance. This will assure that the project is truly feasible, that all costs associated with the project will be known, that there will be no untenable surprises if the project is initiated, and that the project will be successful.

It is the intent of IDNR, the SSCB, and the Division of Soil Conservation that the process for obtaining LARE funds be as simple and straightforward as possible, while at the same time assuring that adequate technical and administrative information is obtained from the project applicants to verify project integrity. Project sponsors are encouraged to actively participate in the development of ***sediment removal plans*** and to do as much of the planning themselves as is feasible and is legally and technically acceptable. While local development of the plans is encouraged, it will be the responsibility of the sponsor to determine its capability to perform tasks associated with doing so. In many cases, relatively small scale projects involving uncontaminated sediments will likely be within the capability of determined, enthusiastic, well-organized local non-professionals. However, large scale and/or complex projects will generally require assistance from paid, experienced professionals. The DoSC staff will be able to provide only limited guidance and assistance to project sponsors wishing to develop ***sediment removal plans***, so there should be no expectation that IDNR can serve in the same capacity as a paid consultant. Therefore, project sponsors should consider the limits of their capabilities when applying for funding to prepare ***sediment removal plans,*** and determine whether they will need to apply for funding to pay a consultant for work they are incapable of doing themselves.

A *sediment removal plan* must contain the following information to be acceptable:

- **Contact information for the organization responsible for the project.** LARE grant funds will not be available to individuals, but only to entities exhibiting the capability to properly represent the interests of a lake's residents and users, without any financial profit motive on the part of the applicant. Provide

appropriate contact information for the person(s) who will be the representative(s) for the project.

- **Project location.** Provide the name of the affected lake, the county in which it's located, the nearest town and any other pertinent georeferencing information. Provide a detailed map of the project location on the lake, preferably at a scale of approximately 1 to 2000.

- **Public involvement.** It is important that affected lake residents and lake users are included in the planning of the project. Describe how they have been apprised of the potential project and the extent to which they have become involved in the planning process.

- **Narrative description of the targeted sediment deposit(s), its dimensions and volume, its composition and its origin.** Explain how the deposit's dimensions were determined and how the volume was calculated. Describe the sediment's characteristics (*e.g.*, primarily decomposing plant material *vs*. inorganic soil) and how they were determined. Sediment deposits in lakes generally result from tributary inflows that have transported eroded soil from an upstream location. If the sediment was transported into the lake by a tributary stream, provide information about the stream. It is essential that the source of the deposit has been identified and that measures have been instituted to address the erosion. If the tributary is a "regulated drain", it will be necessary to provide information regarding cooperation between the project sponsor and the governmental entity responsible for maintenance of the drain. Indicate how and to what extent the drain's regulating entity is involved in the proposed project. This is to assure that the benefits of the sediment removal project will not be negated by the rapid re-introduction of more sediment from the drain.

- **Mapping the lake bottom – contours before and after dredging.** Indicate the normal elevation of the lake's water surface. Provide a detailed scale drawing of the project site indicating current lake bottom contours with the sediment present. Be prepared to provide a similar map after the dredging is completed to indicate the new contours, indicating how they were determined. Provide the rationale for determining the depths to which excavation will occur, keeping in mind the depths favored by various species of desirable and undesirable rooted aquatic plants. A map indicating the location(s) of plants present prior to dredging will be useful as a baseline for future monitoring.

- **Chemical composition of sediment.** It is important to know that there are no contaminants in the sediment that would preclude safe disposal of the material. Describe how the sediment has been evaluated to determine its environmental suitability for disposal at whatever site has been chosen.

- **Land easements, ownership, leasing and availability.** There is a need to know in advance that a disposal site(s) is available and that all necessary arrangements

have been made to utilize the site(s). Describe what has occurred with respect to the acquisition of sediment disposal and dewatering site(s) and/or access to the property(ies). Describe the status of any efforts to obtain easements, to lease or purchase property, etc.

- **Equipment and method of excavation.** There are different methods available for excavating sediments. Describe how the selected dredging and disposal methods were evaluated to determine their suitability for the project. Describe the equipment to be used and the sequence of events related to the actual dredging. Explain what measures will be implemented to assure that the work will not adversely impact the lake.

- **Contractor.** It is essential that only qualified, experienced personnel perform sediment removal. This is to assure that a project does not cause unnecessary damage to the affected lake. Explain the process that will be used to select a contractor(s) to perform the dredging and/or disposal site construction work. Describe the process that will be used to monitor the project's progress and assure its timely and proper completion. Indicate exactly who will be responsible for oversight and that person's qualifications to do so.

- **Disposal and/or dewatering.** Describe the manner in which the dredge spoil will be transported and disposed. Describe the type of disposal and dewatering facilities that will be required and their methods of construction. If dewatering of the dredge spoil will be necessary, explain how the characteristics of the sediment has been evaluated to determine the type/dimensions of settling/dewatering facility required. Describe any special considerations such as the need for chemical flocculation, screening, etc. Explain what temporary and permanent erosion control measures will be used at the facilities. Describe how the sites will be restored when the dredging is completed, providing a description of final landscaping and stabilization measures for the sites.

- **Permits.** Applications for sediment removal projects will not be considered for funding unless there are assurances that all necessary permits will be issued for the project. Depending on the circumstances, permits, approvals or certifications may be required from the U. S. Army Corps of Engineers, the Indiana Department of Environmental Management, the Indiana Department of Natural Resources, the U. S. Fish and Wildlife Service or others. Describe the permits required for the proposed project, who will be responsible for preparation and submittal of all the permit applications, and the current status of any applications (or permits that may have already been acquired).

- **Construction schedule and sequence of work.** Provide an anticipated schedule for initiation and completion of the various project elements. Indicate how the timing was determined.

- **Cost.** Provide anticipated cost figures for the various project elements and explain how the amounts were determined. Identify any costs associated with unusual physical and/or social aspects of the proposed project.

The Division of Soil Conservation staff will provide as much guidance as possible during the development of sediment removal plans, but it should not be anticipated that staff involvement will be extensive. Once a plan is completed, it should be submitted to the Division of Soil Conservation for evaluation of its completeness and adequacy. When the plan has been approved by the staff and the State Soil Conservation Board, the sediment removal project, itself, will be eligible to be considered for funding.

9/10/04 jkr